



US00D741557S

(12) **United States Design Patent**  
**Young et al.**

(10) **Patent No.:** **US D741,557 S**  
(45) **Date of Patent:** **\*\* Oct. 20, 2015**

(54) **DUST COLLECTOR**

3,850,254 A 11/1974 Hirdes  
4,036,308 A 7/1977 Dellenberg  
4,064,952 A 12/1977 Lechner

(71) Applicant: **Milwaukee Electric Tool Corporation,**  
Brookfield, WI (US)

(Continued)

(72) Inventors: **Tyler Young,** Pewaukee, WI (US);  
**Cheng Liang Zhang,** Dongguan (CN);  
**Joseph H. Ellice,** Greenfield, WI (US);  
**Daryl S. Richards,** Sussex, WI (US)

FOREIGN PATENT DOCUMENTS

EP 0456598 11/1991  
EP 1293298 3/2003

(Continued)

(73) Assignee: **Milwaukee Electric Tool Corporation,**  
Brookfield, WI (US)

OTHER PUBLICATIONS

(\*\*) Term: **14 Years**

Makita, "Makita Dust Xtraction Solutions for Every Masonry Appli-  
cation" <<http://www.makitausa.com/en-us/Modules/Tools/XtractVac/Masonry.aspx>> website accessed Mar. 12, 2013.

(Continued)

(21) Appl. No.: **29/479,366**

*Primary Examiner* — Ruth McInroy

(22) Filed: **Jan. 15, 2014**

(74) *Attorney, Agent, or Firm* — Michael Best & Friedrich  
LLP

(51) **LOC (10) Cl.** ..... **15-05**

(52) **U.S. Cl.**  
USPC ..... **D32/21**

(58) **Field of Classification Search**  
USPC ..... D8/70; D32/21, 18, 31  
CPC ..... B26F 1/16; B23D 59/006; B24B 55/06;  
A47L 5/28; A47L 5/24; B23Q 11/0046  
See application file for complete search history.

(57) **CLAIM**

We claim the ornamental design for a dust collector, as shown  
and described.

**DESCRIPTION**

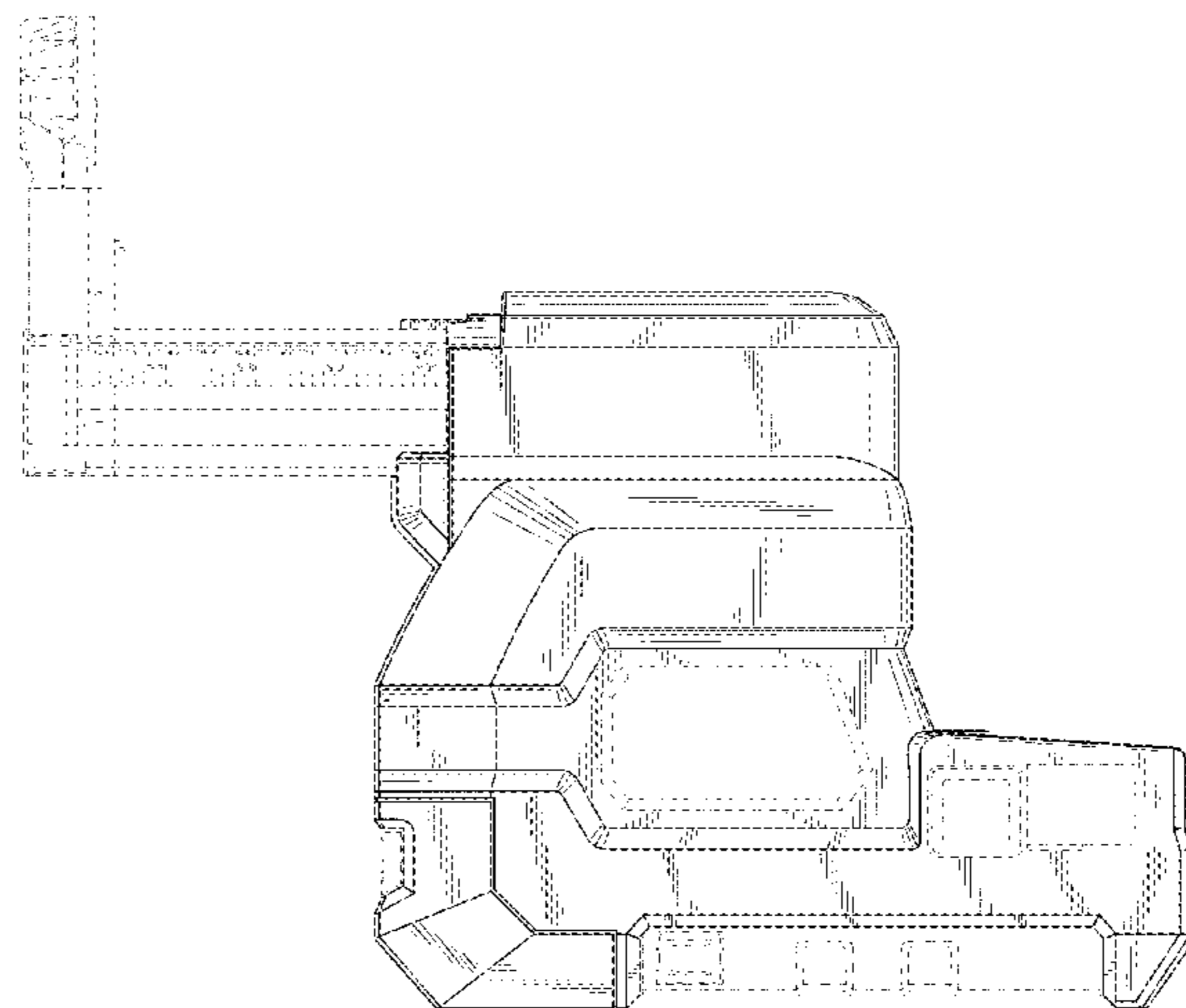
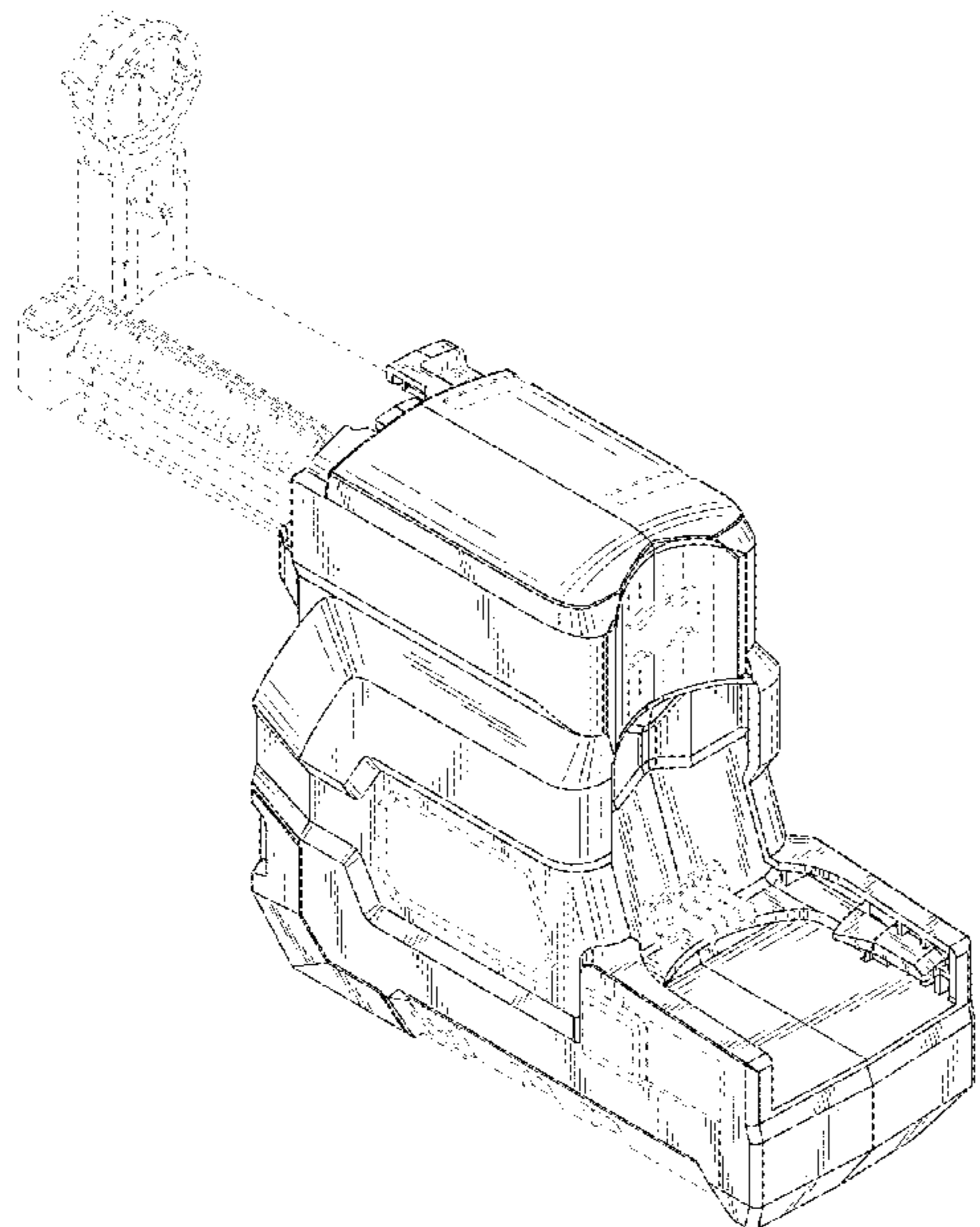
FIG. 1 is a front perspective view of a dust collector showing  
our new design;  
FIG. 2 is a left side view of the dust collector of FIG. 1.  
FIG. 3 is a right side view of the dust collector of FIG. 1.  
FIG. 4 is a top view of the dust collector of FIG. 1.  
FIG. 5 is a bottom view of the dust collector of FIG. 1.  
FIG. 6 is a front view of the dust collector of FIG. 1; and,  
FIG. 7 is a rear view of the dust collector of FIG. 1.  
The portions of the dust collector shown in broken lines are  
included for the purpose of illustrating environment and form  
no part of the claimed design.

(56) **References Cited**

U.S. PATENT DOCUMENTS

2,144,586 A 1/1939 Kelley  
2,246,916 A 6/1941 Fischer  
2,339,324 A 1/1944 Fischer  
2,702,181 A 2/1955 Brown et al.  
3,368,633 A 2/1968 Moates  
3,511,322 A 5/1970 Bixby et al.  
3,776,647 A 12/1973 Hart

**1 Claim, 5 Drawing Sheets**





(56)

References Cited

U.S. PATENT DOCUMENTS

4,097,176	A	6/1978	Wanner et al.	7,802,505	B2	9/2010	Hetcher et al.
4,192,390	A	3/1980	Wanner et al.	7,854,054	B2	12/2010	Kopras et al.
4,207,953	A	6/1980	Reibetanz et al.	7,871,463	B2	1/2011	Hayama et al.
4,209,069	A	6/1980	Smith	7,875,094	B2	1/2011	Baumann et al.
4,250,971	A	2/1981	Reibetanz et al.	7,909,114	B2	3/2011	Nishikawa et al.
4,361,957	A	12/1982	Krötz et al.	7,938,873	B2	5/2011	Fritz et al.
4,754,579	A	7/1988	Batt	7,976,364	B2	7/2011	Roehm
5,090,499	A	2/1992	Cuneo	8,070,845	B2	12/2011	Roehm
5,129,467	A	7/1992	Watanabe et al.	8,113,747	B2	2/2012	Miyanaga
5,199,174	A	4/1993	Wild	8,118,520	B2	2/2012	Hintze et al.
5,199,501	A	4/1993	Klüber et al.	8,152,602	B2	4/2012	Guth
D342,431	S *	12/1993	Swigonski ..... D8/70	8,156,609	B2	4/2012	Milne et al.
5,349,752	A	9/1994	Stirm	8,161,652	B2	4/2012	Delfini et al.
5,467,835	A	11/1995	Obermeier et al.	8,172,642	B2	5/2012	King et al.
5,688,082	A	11/1997	Richardson	8,186,453	B2	5/2012	Furusawa et al.
D392,531	S *	3/1998	Richardson ..... D8/70	D663,184	S *	7/2012	Wait ..... D8/70
5,765,654	A	6/1998	Burger	8,210,273	B2	7/2012	Suzuki et al.
D407,617	S *	4/1999	Cooper et al. .... D8/70	8,210,710	B2	7/2012	Koch et al.
5,899,644	A	5/1999	Buck et al.	8,240,874	B2	8/2012	Koch et al.
5,904,453	A	5/1999	Gavia	8,281,695	B2	10/2012	Saari et al.
5,993,122	A	11/1999	Baker	8,342,782	B2	1/2013	Nishikawa et al.
6,053,674	A	4/2000	Thompson	8,344,648	B2	1/2013	Straub
6,146,066	A	11/2000	Yelton	D677,545	S *	3/2013	Sell ..... D8/70
6,199,644	B1	3/2001	Thanner et al.	D677,548	S *	3/2013	Rosenau et al. .... D8/70
6,200,075	B1	3/2001	Gaskin et al.	D678,028	S *	3/2013	Rosenau et al. .... D8/70
6,376,942	B1	4/2002	Burger et al.	8,395,066	B2	3/2013	Koch et al.
6,443,676	B1	9/2002	Kopras	8,397,342	B2	3/2013	Baker et al.
6,448,732	B1	9/2002	Block	8,398,457	B2	3/2013	King et al.
6,514,131	B1	2/2003	Reich et al.	8,409,310	B2	4/2013	Despineux et al.
6,615,930	B2	9/2003	Bongers-Ambrosius et al.	8,424,615	B2	4/2013	Baumann et al.
6,621,225	B2	9/2003	Bruwer	8,443,914	B2	5/2013	Bito et al.
6,641,634	B2	11/2003	Reich et al.	D687,195	S *	7/2013	Sell ..... D32/21
6,650,066	B2	11/2003	Bruwer	8,479,964	B2	7/2013	Furusawa et al.
6,683,396	B2	1/2004	Ishida et al.	2001/0052429	A1	12/2001	Frenzel et al.
6,727,679	B2	4/2004	Kovarik et al.	2002/0129949	A1	9/2002	Bongers-Ambrosius et al.
D499,625	S *	12/2004	Stirm ..... D8/70	2002/0154960	A1	10/2002	Lin
D499,946	S *	12/2004	Stirm ..... D8/70	2003/0044247	A1	3/2003	Wolfe
6,848,985	B2	2/2005	Lamprecht et al.	2004/0060719	A1	4/2004	Wiborg
6,851,898	B2	2/2005	Ege et al.	2004/0192184	A1 *	9/2004	Staas et al. .... 454/49
6,854,937	B1	2/2005	Weiss	2005/0000052	A1 *	1/2005	Byles ..... 15/314
6,854,938	B2	2/2005	Kopras et al.	2006/0178087	A1	8/2006	Wuensch et al.
6,887,146	B2	5/2005	Staas et al.	2006/0276116	A1	12/2006	Reich et al.
6,910,960	B2	6/2005	Reich et al.	2007/0264091	A1 *	11/2007	Bleicher et al. .... 408/58
6,951,439	B2	10/2005	Arich	2008/0020686	A1	1/2008	Reich et al.
D513,161	S *	12/2005	Chilton ..... D8/70	2008/0124181	A1	5/2008	Hintze et al.
7,017,680	B2	3/2006	Arich et al.	2008/0169114	A1	7/2008	Wuensch et al.
7,047,647	B1	5/2006	Müller et al.	2009/0000256	A1	1/2009	Hesse et al.
7,064,520	B2	6/2006	Heigl et al.	2009/0091277	A1	4/2009	Ontl
7,084,531	B2	8/2006	Bruwer	2009/0136309	A1	5/2009	Coulston et al.
7,118,609	B2	10/2006	Valentini	2009/0148246	A1	6/2009	Nishikawa et al.
7,182,150	B2	2/2007	Grossman	2009/0148248	A1	6/2009	Nishikawa et al.
7,220,088	B2	5/2007	Ferrari et al.	2010/0000386	A1	1/2010	Dagn
7,265,494	B2	9/2007	Bruwer	2010/0170538	A1 *	7/2010	Baker et al. .... 134/18
7,281,886	B2	10/2007	Stoerig	2010/0175902	A1	7/2010	Rejman et al.
7,291,940	B2	11/2007	Bruwer	2010/0197209	A1	8/2010	Dehde et al.
7,323,023	B2	1/2008	Michele et al.	2010/0215450	A1	8/2010	Santamarina et al.
7,325,273	B2	2/2008	Thanner et al.	2010/0260565	A1	10/2010	Santamarina et al.
7,329,970	B2	2/2008	Bruwer	2010/0307308	A1	12/2010	Butler
7,347,651	B2	3/2008	Hintze et al.	2011/0008117	A1	1/2011	Kasuya et al.
7,354,226	B2	4/2008	Britz	2011/0008118	A1	1/2011	Yoshikane et al.
7,425,109	B2	9/2008	Simm et al.	2011/0079207	A1	4/2011	Guth
7,443,101	B2	10/2008	Bruwer	2011/0081214	A1	4/2011	Santamarina et al.
7,455,486	B2	11/2008	Britz	2011/0147031	A1	6/2011	Matthias et al.
7,475,739	B2	1/2009	Wuensch	2011/0160910	A1	6/2011	Preisinger et al.
D589,318	S *	3/2009	Meyer ..... D8/70	2011/0198103	A1	8/2011	Suzuki
7,497,886	B2	3/2009	Walker	2011/0226499	A1	9/2011	Kakiuchi et al.
7,510,356	B2	3/2009	Colon	2012/0037391	A1	2/2012	Clabunde et al.
7,526,833	B2	5/2009	Cochran et al.	2012/0043101	A1	2/2012	Ishikawa et al.
D593,389	S *	6/2009	Clayton ..... D8/70	2012/0051858	A1 *	3/2012	Everington, Jr. .... 408/67
7,553,217	B2	6/2009	Reich et al.	2012/0063856	A1	3/2012	Miwa et al.
7,634,835	B2	12/2009	Simm et al.	2012/0073077	A1	3/2012	Ishikawa et al.
7,712,183	B2	5/2010	Nakai et al.	2012/0080206	A1	4/2012	Walker
7,740,086	B2	6/2010	Bleicher et al.	2012/0159734	A1	6/2012	Fujiwara
7,740,523	B2	6/2010	Zaiser et al.	2012/0184193	A1	7/2012	Numata
7,794,184	B2	9/2010	Di Nicolantonio et al.	2012/0210535	A1	8/2012	Miwa et al.
				2012/0234570	A1 *	9/2012	Machida et al. .... 173/197
				2012/0252328	A1	10/2012	Muto et al.
				2012/0260456	A1	10/2012	King, Jr.
				2012/0262035	A1	10/2012	Takano et al.

(56)

**References Cited**

U.S. PATENT DOCUMENTS

2012/0268926 A1 10/2012 Steinicke et al.  
 2012/0273243 A1 11/2012 Tada et al.  
 2012/0274244 A1 11/2012 Funabashi et al.  
 2012/0279740 A1 11/2012 Furusawa et al.  
 2012/0285308 A1 11/2012 Koegel  
 2012/0298391 A1 11/2012 Kakiuchi et al.  
 2012/0308320 A1 12/2012 Tseng  
 2012/0318553 A1\* 12/2012 Chen et al. .... 173/198  
 2013/0002175 A1 1/2013 Shimizu et al.  
 2013/0015789 A1 1/2013 Miyazaki et al.  
 2013/0019431 A1 1/2013 Vanderlinden  
 2013/0025893 A1 1/2013 Ota et al.  
 2013/0031879 A1 2/2013 Yoshikane et al.  
 2013/0031881 A1 2/2013 Machida et al.  
 2013/0033190 A1 2/2013 Bruwer  
 2013/0034396 A1 2/2013 Witthoeft  
 2013/0055523 A1 3/2013 Yoshikane et al.  
 2013/0055527 A1 3/2013 Machida et al.  
 2013/0055866 A1 3/2013 Sheddy et al.  
 2013/0068255 A1 3/2013 Heger  
 2013/0081280 A1 4/2013 Moreno et al.  
 2013/0087357 A1\* 4/2013 King, Jr. .... 173/199  
 2013/0094194 A1 4/2013 Koch et al.  
 2013/0094915 A1 4/2013 Chen  
 2013/0098346 A1 4/2013 South  
 2013/0111695 A1 5/2013 Morgan et al.

2013/0136549 A1 5/2013 Appel et al.  
 2013/0149056 A1\* 6/2013 Appel ..... 408/58  
 2013/0161049 A1 6/2013 Ikuta et al.  
 2013/0183111 A1 7/2013 Lerch et al.  
 2013/0213683 A1\* 8/2013 Brewster et al. .... 173/198

FOREIGN PATENT DOCUMENTS

EP	1340591	9/2003
EP	1661662	5/2006
EP	1714732	10/2006
EP	1872899	1/2008
EP	1872900	1/2008
EP	1923149	5/2008
EP	1923177	5/2008
EP	2106327	10/2009
EP	1990121	1/2010
EP	1923174	5/2010
EP	2324944	5/2011
EP	2368666	9/2011

OTHER PUBLICATIONS

Hilti, "TE 6-A Operating Instructions" 332016/C (2002) 14 pages.  
 Dewalt, "D25300DH Dust Extraction for L-Shape SDS Hammer"  
 (2013) 1 page.  
 Co-pending U.S. Appl. No. 29/479,361, filed Jan. 15, 2014.

\* cited by examiner



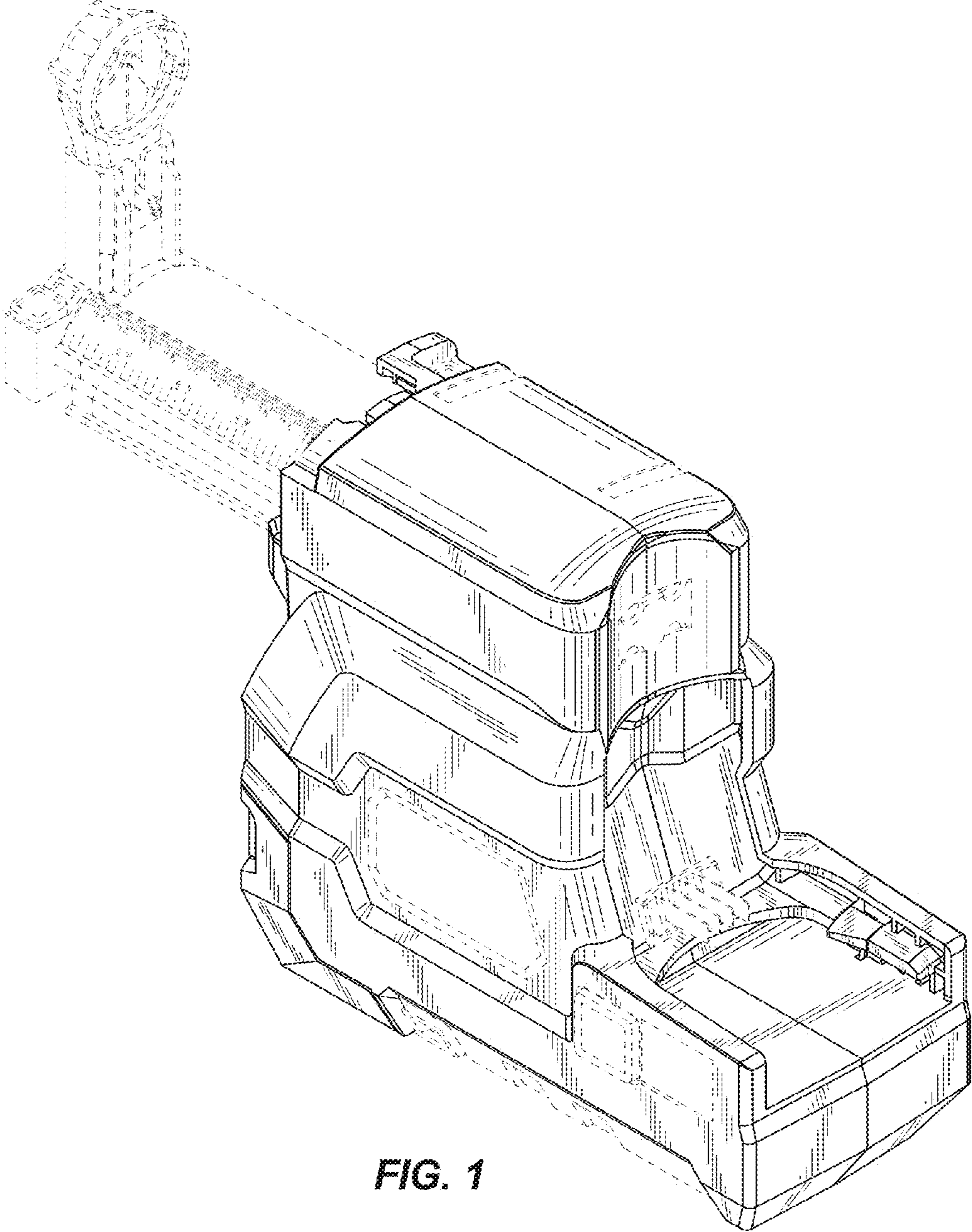


FIG. 1

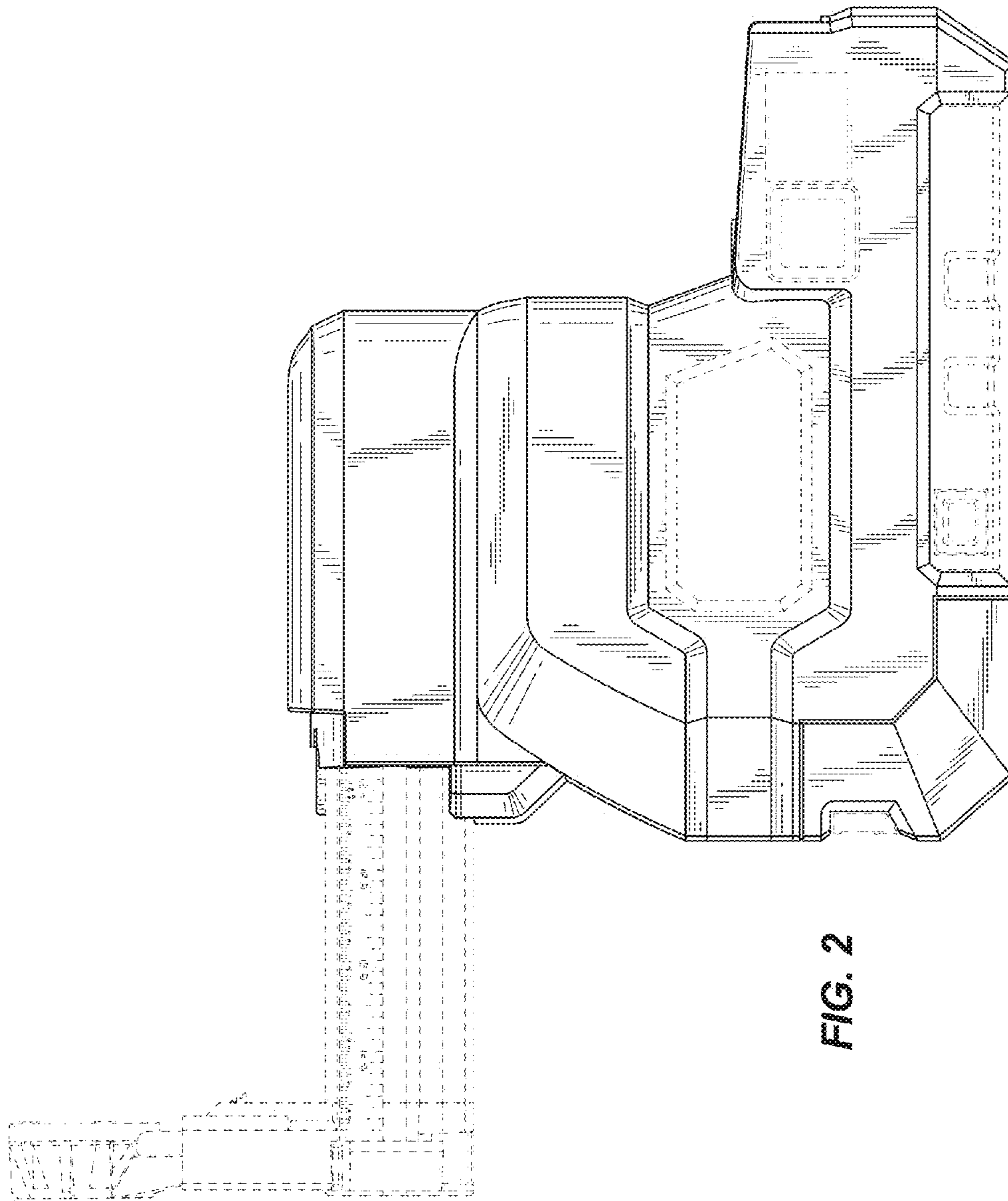
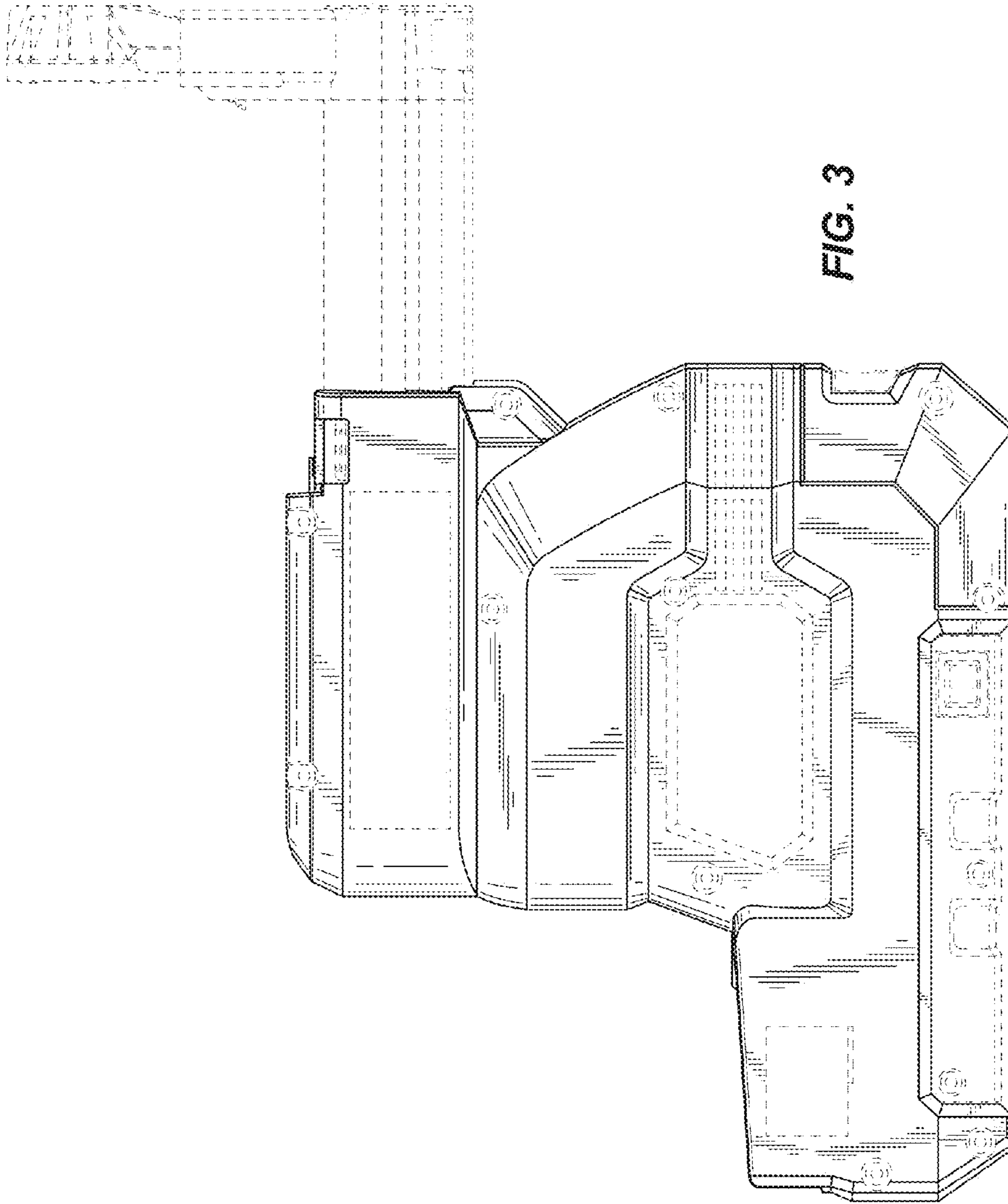
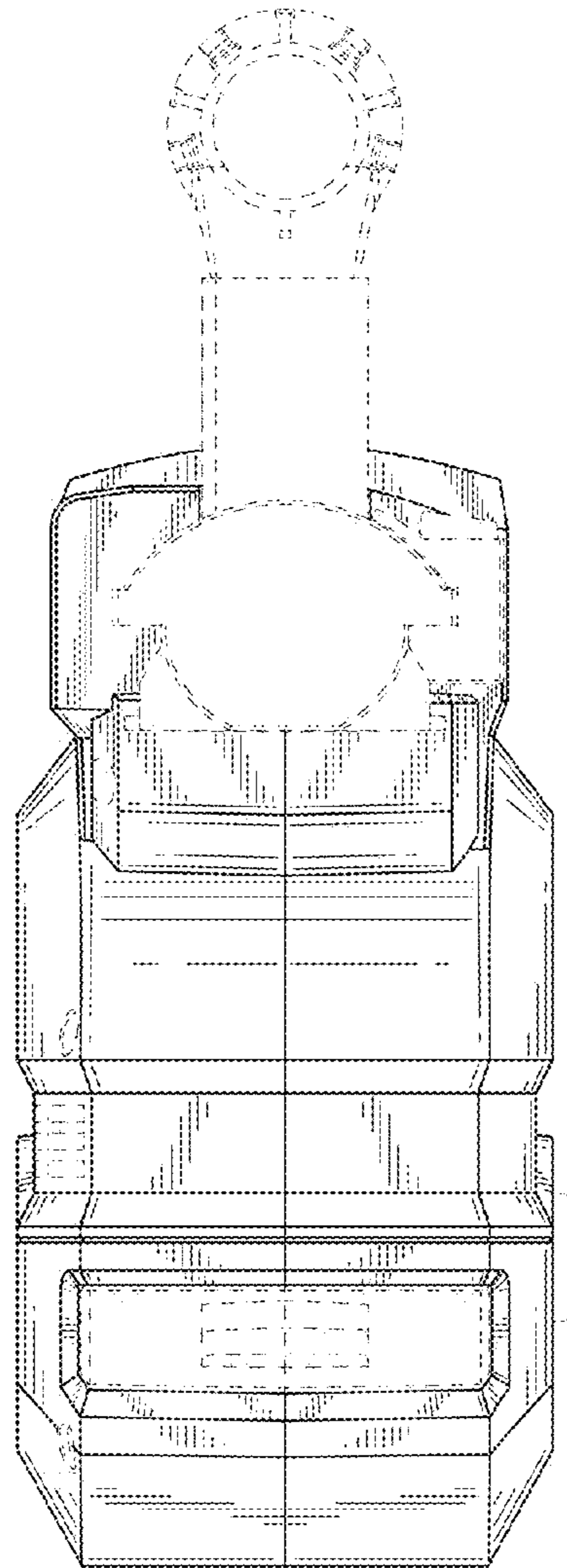
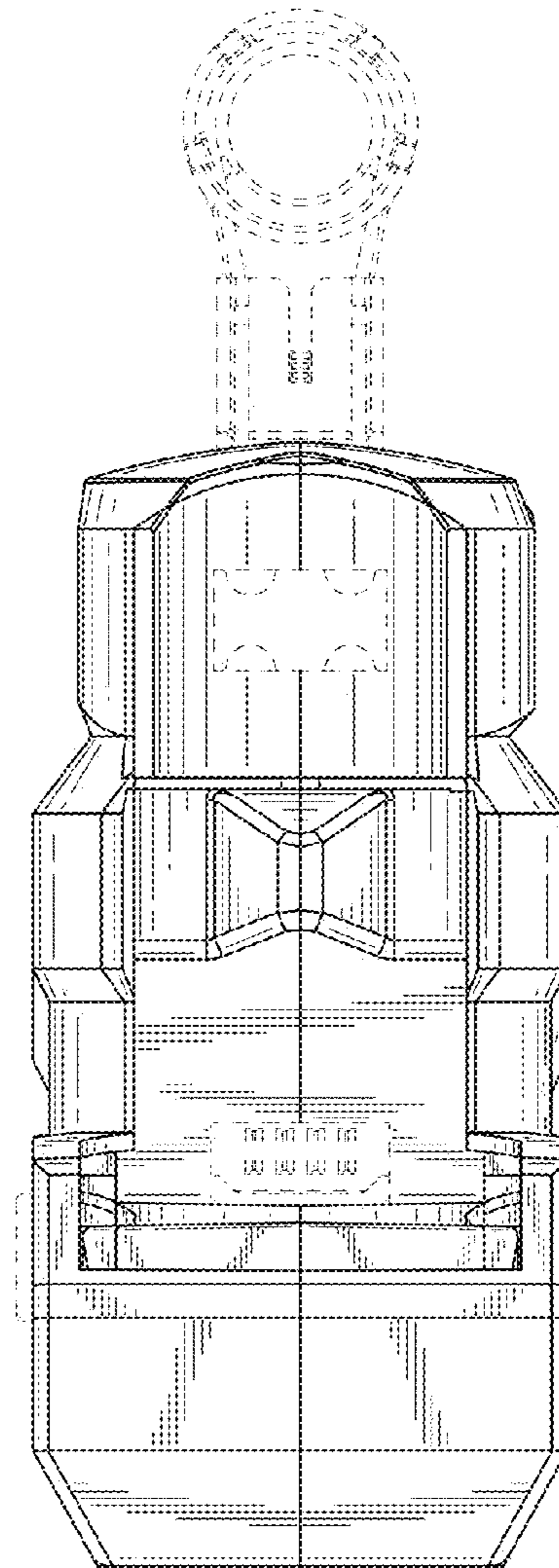


FIG. 2





**FIG. 4**



**FIG. 5**



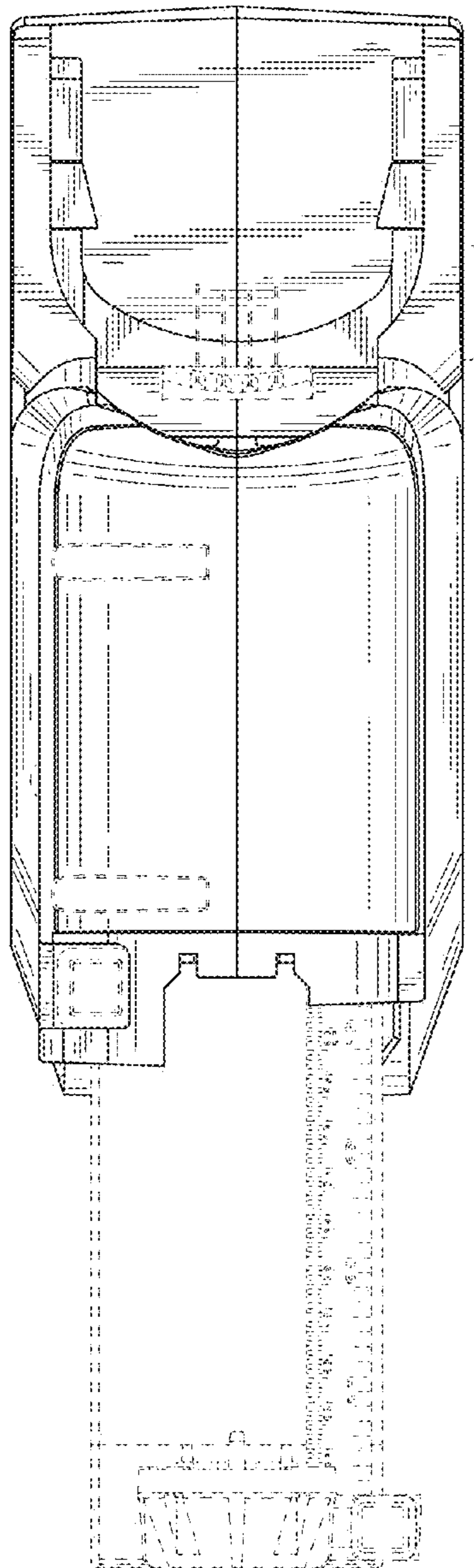


FIG. 6

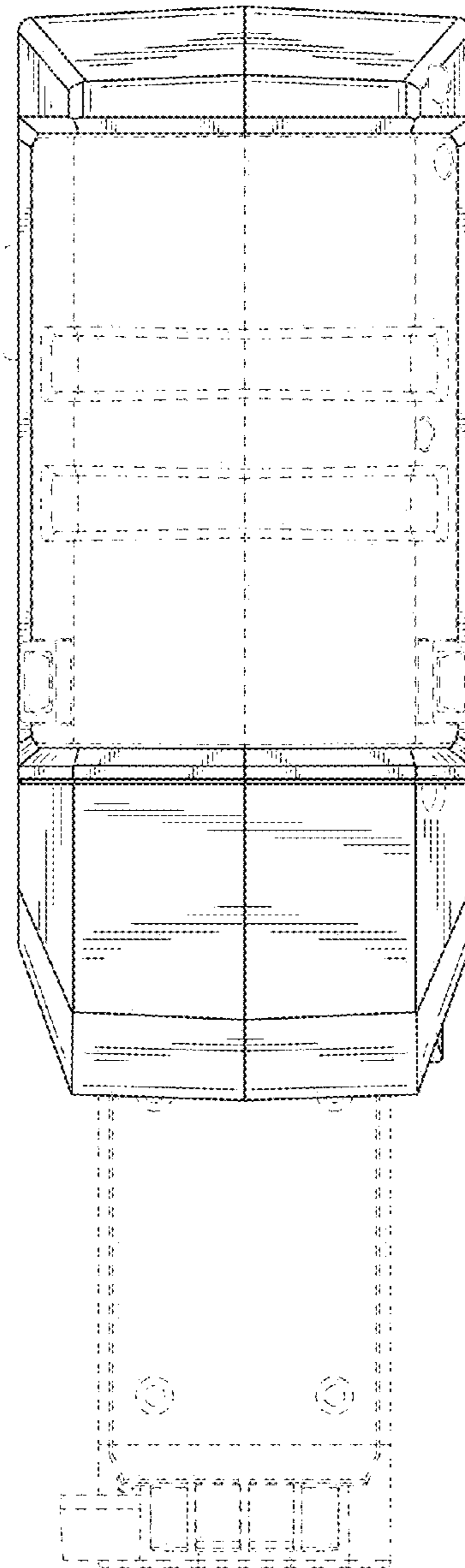


FIG. 7